

WHAT IS CLAIMED IS:

1. A liquid crystal display device having a plurality of thin film transistors, at least one of said thin film transistors comprising:

an active layer over a substrate;

a gate insulating film over said active layer;

a gate electrode over said gate insulating film; and

two wirings connected to said active layer, each of said wirings electrically connecting one of said plurality of thin film transistors,

wherein edge portions of said active layer and a part of edge portion of said wirings are aligned.

2. A liquid crystal display device having a plurality of thin film transistors, at least one of said thin film transistors comprising:

an active layer having a source and drain regions over a substrate;

a gate insulating film over said active layer;

a gate electrode over said gate insulating film; and

two wirings connected to said source and drain regions, each of said wirings electrically connecting one of said plurality of thin film transistors,

wherein edge portions of said active layer and a part of edge portion of said wirings are aligned.

3. A method of manufacturing a liquid crystal display device comprising the steps of:

forming an amorphous semiconductor film including silicon on a substrate having an

insulating surface;

adding a catalyst element which promotes crystallization of the amorphous semiconductor film to the amorphous semiconductor film;

crystallizing the amorphous semiconductor film by a heat processing;

selectively adding a periodic table group 15 element to a semiconductor film including silicon obtained in the third step; and

gettering the catalyst element to the region added with the periodic table group 15 element by the heat processing;

wherein the periodic table group 15 element in the fourth step is added to the outside of a p-channel thin film transistor region.

4. A method of manufacturing a liquid crystal display device comprising the steps of:

forming an amorphous semiconductor film including silicon on a substrate having an insulating surface;

adding a catalyst element which promotes crystallization of the amorphous semiconductor film to the amorphous semiconductor film;

crystallizing the amorphous semiconductor film by a heat processing;

irradiating a laser light or a strong light to a semiconductor film including silicon obtained in the third step;

selectively adding a periodic table group 15 element to a semiconductor film including silicon obtained in the fourth step; and

gettering the catalyst element to the region added with the periodic table group 15 element by the heat processing;

wherein the periodic table group 15 element in the fifth step is added to the outside of a p-channel thin film transistor region.

5. A method of manufacturing a liquid crystal display device comprising the steps of:

forming an amorphous semiconductor film including silicon on a substrate having an insulating surface;

adding a catalyst element which promotes crystallization of the amorphous semiconductor film to the amorphous semiconductor film;

crystallizing the amorphous semiconductor film by a heat processing;

selectively adding a periodic table group 15 element to a semiconductor film including silicon obtained in the third step to the outside of a p-channel thin film transistor region; and

gettering the catalyst element to the region added with the periodic table group 15 element by the heat processing,

wherein a region provided on the outside of the thin film transistor region within the region where the catalyst element has been gettered in the fifth step, is to be removed in a self-aligning manner with a source wiring or a drain wiring as a mask.

6. A method of manufacturing a liquid crystal display device comprising the steps of:

forming an amorphous semiconductor film including silicon on a substrate having an insulating surface;

adding a catalyst element which promotes crystallization of the amorphous

semiconductor film to the amorphous semiconductor film;

crystallizing the amorphous semiconductor film by a heat processing;

irradiating a laser light or a strong light to a semiconductor film including silicon obtained in the third step;

selectively adding a periodic table group 15 element to a semiconductor film including silicon obtained in the fourth step to the outside of a p-channel thin film transistor region; and

gettering the catalyst element to the region added with the periodic table group 15 element by the heat processing,

wherein a region provided on the outside of the thin film transistor region within the region where gettering the catalyst element has been performed in the sixth step, is to be removed in a self-aligning manner with a source wiring or a drain wiring as a mask.

7. A method of manufacturing a liquid crystal display device according to claim 3, wherein at least one selected from the group consisting of Ni, Co, Fe, Pd, Pt, Cu and Au is used as the catalyst element.

8. A method of manufacturing a liquid crystal display device according to claim 4, wherein at least one selected from the group consisting of Ni, Co, Fe, Pd, Pt, Cu and Au is used as the catalyst element.

9. A method of manufacturing a liquid crystal display device according to claim 5, wherein at least one selected from the group consisting of Ni, Co, Fe, Pd, Pt, Cu and Au is used as the catalyst element.

10. A method of manufacturing a liquid crystal display device according to claim 6, wherein at least one selected from the group consisting of Ni, Co, Fe, Pd, Pt, Cu and Au is used as the catalyst element.

11. A method of manufacturing a liquid crystal display device according to claim 3, wherein at least one selected from the group consisting of N, P, As, Sb, and Bi is used as the periodic table group 15 element.

12. A method of manufacturing a liquid crystal display device according to claim 4, wherein at least one selected from the group consisting of N, P, As, Sb, and Bi is used as the periodic table group 15 element.

13. A method of manufacturing a liquid crystal display device according to claim 5, wherein at least one selected from the group consisting of N, P, As, Sb, and Bi is used as the periodic table group 15 element.

14. A method of manufacturing a liquid crystal display device according to claim 6, wherein at least one selected from the group consisting of N, P, As, Sb, and Bi is used as the periodic table group 15 element.

15. A liquid crystal display device according to claim 1, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

16. A liquid crystal display device according to claim 2, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

17. A method of manufacturing a liquid crystal display device according to claim 3, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

18. A method of manufacturing a liquid crystal display device according to claim 4, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

19. A method of manufacturing a liquid crystal display device according to claim 5, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

20. A method of manufacturing a liquid crystal display device according to claim 6, wherein said liquid crystal display device is a device selected from the group consisting of: a portable telephone, a video camera, a mobile computer, a goggle type display, an rear projector and a front projector.

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